

WHAT IS CLAIMED IS:

1. An apparatus for seating a semiconductor device in a semiconductor test handler, the apparatus comprising:
 - a plate;
 - a plurality of seating portions on the plate, wherein each seating portion is configured to receive a semiconductor device;
 - at least one latch arranged adjacent each seating portion and configured to press a semiconductor device into the seating portion;
 - an actuator configured to cause the at least one latch to press a semiconductor device into the seating portion, and wherein the actuator is also configured to cause the latch to disengage from the semiconductor device so that the semiconductor device can be removed from the seating portion.
2. The apparatus as claimed in claim 1, wherein each seating portion comprises a through hole for forming a vacuum between the seating portion and a surface of a semiconductor device resting in the seating portion so that the semiconductor device can be held in the seating portion by the vacuum.
3. The apparatus as claimed in claim 2, wherein the seating portions further comprise a plurality of ball inserting holes for receiving the balls of a BGA-type semiconductor device.

4. The apparatus as claimed in claim 3, wherein the seating portions further comprise a recess on an upper side thereof, the recess being dimensioned to be smaller than the semiconductor device and being located so as to be entirely covered by the seated semiconductor device.

5. The apparatus as claimed in claim 1, wherein the at least one latch is movable between a first position where it presses a semiconductor device into a seating portion and a second position at which it releases the semiconductor device from the seating portion.

6. The apparatus as claimed in claim 5, wherein the latch is pivotable about an axis so that it can move between the first position and the second position, and wherein the latch actuator is configured to cause the latch to pivot between the first and second positions.

7. The apparatus of claim 6, wherein the latch actuator comprises an actuating member and a biasing member, and wherein a force can be applied to the actuating member to pivot the latch into the second position against the force of the biasing member, and wherein when no force is applied to the actuating member, the biasing member causes the latch to pivot into the first position.

8. The apparatus as claimed in claim 7, wherein the latch has an elongated hole and the actuating member has a pin partly inserted therein and extending through the

elongated hole of the latch, so that as the actuating member is moved between first and second positions, the pin is moved along the elongated hole, thereby pivoting the latch.

9. The apparatus as claimed in claim 1, wherein two latches are arranged adjacent opposite sides of each seating portion.

10. A semiconductor test handler comprising an apparatus as claimed in claim 1.

11. An apparatus for seating a semiconductor device, comprising:
a device seating block comprising a seating surface surrounding a recess in a first surface of the device seating block;
a latch movably mounted proximate to the seating surface; and
an elevating part coupled to the latch and configured to move the latch between open and closed positions, wherein the latch is configured to apply pressure to a semiconductor device to press the semiconductor device against the seating surface when the latch is in the closed position.

12. The apparatus of claim 11, wherein the elevating part comprises a protruding pin, wherein the elevating part is movable between first and second positions, wherein the latch comprises a substantially planar member having a slot therein, wherein the slot in the planar member receives the pin on the elevating part, and wherein movement of the

elevating member between the first and second positions causes the latch to move between the open and closed positions.

13. The apparatus of claim 12, wherein the latch is pivotably mounted on the device seating block, and wherein the elevating part is configured to cause the latch to pivot between the open and closed positions.

14. The apparatus of claim 11, further comprising a biasing member mounted on the device seating block and configured to bias the elevating part toward the second position, which thereby causes the latch to move toward the closed position.

15. The apparatus of claim 14, wherein the elevating part is configured to be pressed by a press bar disposed above the elevating part towards the first position against the bias of the biasing member, which causes the latch to move towards the open position.

16. The apparatus of claim 11, wherein the seating surface comprises apertures therein configured to receive balls of a semiconductor device pressed thereupon.

17. The apparatus of claim 11, wherein the device seating block further comprises a through hole configured to apply a vacuum to a surface of a semiconductor device mounted in the recess.

18. An apparatus for seating a semiconductor device in a semiconductor test handler, the apparatus comprising:

a plate;

a plurality of seating portions on the plate, wherein each seating portion is configured to receive a semiconductor device;

pressing means for releasably pressing a semiconductor device into a respective seating portion; and

means for applying a vacuum to a surface of a semiconductor device mounted in the respective seating portion.

19. The apparatus of claim 18, wherein each seating portion comprises means for receiving solder balls on a surface of a semiconductor device mounted in the seating portion.

20. A test handler comprising the apparatus of claim 18.